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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *
* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:27:49 ON 12 MAR 2009

=> FILE REG

=>  E TORASEMIDE/CN
E1            1     TORANTIL/CN
E2            1     TORAPSEL/CN
E3            1 --> TORASEMIDE/CN
E4            1     TORASEMIDE SODIUM/CN
E5            1     TORASORU CN/CN
E6            1     TORASORU PF 60/CN
E7            1     TORATE/CN
E8            1     TORATEX/CN
E9            1     TORAX/CN
E10           1     TORAY 090/CN
E11           1     TORAY 100/CN
E12           1     TORAY 1000/CN

=> S E3
L1            1 TORASEMIDE/CN

=> DIS  L1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   56211-40-6  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-
     methylphenyl)amino]-  (CA INDEX NAME)
OTHER NAMES:
CN   AC 4464
CN   BM 02.015
CN   BM 02015
CN   Demadex
CN   JDL 464
CN   Luprac
CN   Toradiur
CN   Torasemide
CN   Torem
CN   Torsemide
CN   Unat
MF   C16 H20 N4 O3 S
CI   COM
LC   STN Files:   ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM,
       DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS, IMSPATENTS,
       IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK*, PHAR, PROMT, PROUSDDR, PS,
       RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   WHO
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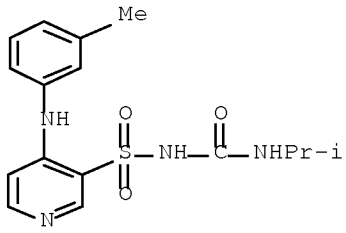

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             482 REFERENCES IN FILE CA (1907 TO DATE)
              22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             484 REFERENCES IN FILE CAPLUS (1907 TO DATE)


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=> S L1
L2          484 L1

=> S L2 AND MODIFICATION 1
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            146 MODIFICATION 1
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L5           15 L2 AND MODIFICATION

=> S L5 AND PROCESS
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L6            2 L5 AND PROCESS

=> S L5 AND ALKALINE
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=> S L5 AND EXTRACT
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=> S L5 AND PD<JULY 2002
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L9           10 L5 AND PD<JULY 2002
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=> DIS L9 1-10 BIB ABS HITSTR

L9   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2003:77557  CAPLUS  Full-text
DN   138:126993
TI   Stable pharmaceutical formulation comprising torsemide
     modification II
IN   Leibovici, Minutza; Tenengauzer, Ruth; Kopel, Mira; Aronhime, Judith;
     Kordova, Marco
PA   Israel
SO   U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 789,424.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   US 20030022921       A1    20030130    US 2002-71423          20020208
     US 20020035135       A1    20020321    US 2001-789424         20010221 <--
     US 6482417           B2    20021119
     CA 2410802           A1    20020906    CA 2001-2410802        20010221
     AU 2001238617        A1    20020912    AU 2001-238617         20010221
     EP 1292303           A1    20030319    EP 2001-911078         20010221
     EP 1292303           B1    20040512
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     JP 2004522780        T     20040729    JP 2002-567302         20010221
     PT 1292303           T     20040930    PT 2001-911078         20010221
     ES 2193007           T3    20041101    ES 2001-911078         20010221
     DE 20122564          U1    20060524    DE 2001-20122564       20010221
     CA 2455881           A1    20030814    CA 2003-2455881        20030207
     WO 2003066023        A1    20030814    WO 2003-US3701         20030207
     WO 2003066023        A9    20031120
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
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             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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     EP 1359900           A1    20031112    EP 2003-702168         20030207
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     JP 2005518422        T     20050623    JP 2003-565448         20030207
     CN 1646094           A     20050727    CN 2003-807826         20030207
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     ZA 2004006026        A     20060726    ZA 2004-6026           20040728
     MX 2004007695        A     20041207    MX 2004-7695           20040806
     NO 2004003749        A     20040907    NO 2004-3749           20040907
PRAI US 2001-789424       A2    20010221
     US 2000-183288P      P     20000217
     EP 2001-911078       A     20010221
     WO 2001-US5577       W     20010221
     US 2002-71423        A     20020208
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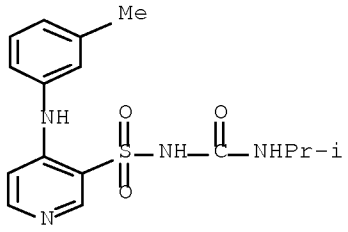
WO 2003-US3701 W 20030207

AB Stable pharmaceutical formulations for the oral administration of high purity torsemide modification II are disclosed. These formulations release high purity torsemide modification II in water at a constant and high purity rate, and the high purity torsemide modification II therein does not rearrange to torsemide modification I over time. Methods for their manufacture are also disclosed.

IT 56211-40-6, Torsemide
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation and stable oral formulation of torsemide modification II)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



L9 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2002:368347 CAPLUS Full-text

DN 136:374863

TI Compositions of torasemide containing cyclic oligosaccharides

IN Dumic, Miljenko; Filic, Darko; Klepic, Bozena; Danilovski, Aleksandar; Tudja, Marija

PA Pliva, Farmaceutska Industrija, Dionicko Drustvo, Croatia

SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002038186	A1	20020516	WO 2001-HR4	20010131 <--
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
HR 2000000765	A1	20020630	HR 2000-765	20001110 <--
CA 2428179	A1	20020516	CA 2001-2428179	20010131 <--
AU 2001028721	A	20020521	AU 2001-28721	20010131 <--
BR 2001015281	A	20030729	BR 2001-15281	20010131
EE 200300197	A	20030815	EE 2003-197	20010131

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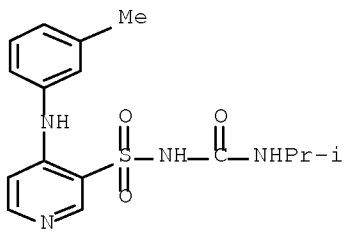
	JP 2004513155	T	20040430	JP 2002-540768	20010131
	ZA 2003003601	A	20040719	ZA 2003-3601	20010131
	HU 2004000776	A2	20040830	HU 2004-776	20010131
	AT 350065	T	20070115	AT 2001-993478	20010131
	IN 2003CN00694	A	20050415	IN 2003-CN694	20030508
	NO 2003002091	A	20030702	NO 2003-2091	20030509
	US 20040039204	A1	20040226	US 2003-416303	20030509
	US 7037928	B2	20060502		
	MX 2003004111	A	20040505	MX 2003-4111	20030509
	BG 107896	A	20040130	BG 2003-107896	20030610
PRAI	HR 2000-765	A	20001110		
	WO 2001-HR4	W	20010131		

AB A pharmaceutical composition, such as a tablet, capsule, injection, or spray, based on phys. mixts. or inclusion complexes of torasemide and cyclodextrins is described. The compns. are used as a diuretic and as an agent for preventing heart damages caused by metabolic or ionic abnormalities associated with ischemia, in the treatment of thrombosis, angina pectoris, asthma, hypertension, nephroedema, pulmonary edema, primary and secondary aldosteronism, Batter's syndrome, tumors, glaucoma, bronchitis, in the treatment of cerebral edema, in the treatment of nasal infections caused by allergens, etc. For example, β-cyclodextrin (1.81 g) was dissolved in 50 mL of water and 10 drops of an aqueous ammonia solution were added. Subsequently, an equimolar amount of the modification I of torasemide was added to the solution, it was vigorously stirred for 24 h and then filtered and water was removed by lyophilization. The formation of the inclusion complex of torasemide and β-cyclodextrin (1:1) was proven by DSC, IR anal. and X-ray powder pattern. Torasemide release from the inclusion complex prepared in water at 37° was 95.8, 98.3, and 98.5% after 15, 60, and 90 min, resp.

IT 56211-40-6, Torasemide
RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(preparation and therapeutic uses of compns. containing mixts. or inclusion complexes of torasemide and cyclodextrins)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2002:221216 CAPLUS Full-text

DN 136:252510

TI Stable pharmaceutical formulation comprising torasemide form II
IN Leibovici, Minutza; Tenengauzer, Ruth; Kopel, Mira; Aronhime, Judith; Kordova, Marco
PA Israel
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20020035135	A1	20020321	US 2001-789424	20010221 <--
	US 6482417	B2	20021119		
	CA 2410802	A1	20020906	CA 2001-2410802	20010221
	WO 2002067935	A1	20020906	WO 2001-US5577	20010221
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001238617	A1	20020912	AU 2001-238617	20010221
	EP 1292303	A1	20030319	EP 2001-911078	20010221
	EP 1292303	B1	20040512		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
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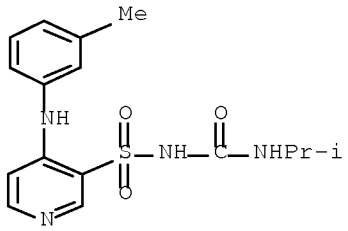
	CN 1505512	A	20040616	CN 2001-823168	20010221
	JP 2004522780	T	20040729	JP 2002-567302	20010221
	PT 1292303	T	20040930	PT 2001-911078	20010221
	ES 2193007	T3	20041101	ES 2001-911078	20010221
	DE 20122564	U1	20060524	DE 2001-20122564	20010221
	HU 2006000143	A2	20061028	HU 2006-143	20010221
	US 20030022921	A1	20030130	US 2002-71423	20020208
	NO 2003003699	A	20031010	NO 2003-3699	20030820
	ZA 2003006679	A	20040827	ZA 2003-6679	20030827
	MX 2003007908	A	20041206	MX 2003-7908	20030902
PRAI	US 2000-183288P	P	20000217		
	EP 2001-911078	A	20010221		
	US 2001-789424	A2	20010221		
	WO 2001-US5577	W	20010221		

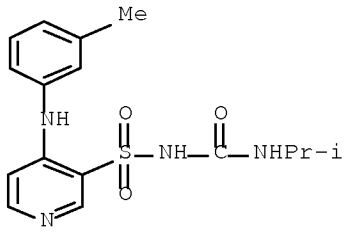
AB Novel, stable pharmaceutical formulations for the oral administration of high purity torasemide modification II are disclosed. These formulations release high purity torasemide modification II in water at a constant and high purity rate, and the high purity torasemide modification II therein does not rearrange to torasemide modification I over time. Methods for their manufacture are also disclosed. Thus, tablets contained high purity torasemide form II 37.5, lactose 697.5, Crospovidone 150.0, Povidone PVP K-30 37.5, microcryst. cellulose (Avicel PH 112) 52.5, alc. 500.0, and Mg stearate 12.8 g. Each tablet contained 2.5 mg torasemide.

IT 56211-40-6, Torasemide
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stable pharmaceutical formulations comprising torasemide form II)

RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



L9 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:5147 CAPLUS Full-text
DN 137:268260
TI Crystal forms of torasemide: new insights
AU Rollinger, Judith Maria; Gstrein, Elisabeth Maria; Burger, Artur
CS Institute of Pharmacy/Pharmacognosy, University of Innsbruck, Innsbruck, Austria
SO European Journal of Pharmaceutics and Biopharmaceutics (2002), 53(1), 75-86
CODEN: EJPBEL; ISSN: 0939-6411
PB Elsevier Science Ireland Ltd.
DT Journal
LA English
AB Crystallization from various organic solvents results in three crystal forms of torasemide: monotropically related modification (mod.) I (m.p. 158-161°) and mod. II (m.p. 155-158°), as well as a pseudopolymorphic crystal form (form A, channel inclusion compound with 1.9-4.2% water and alc.). Physicochem. properties were determined by thermoanal. (hot-stage microscopy, DSC, thermogravimetry), FT-IR and Raman spectroscopy, and x-ray powder diffractometry. The hygroscopicity, relative stability, true d., and heat of solns. were determined, resp. The dissoln. behavior of mod. I and II was investigated as a function of pH, temperature, and in addition to surfactants. Mod. II is nearly 3-fold more soluble than mod. I (mod. I, 0.34 mmol L-1; mod. II, 0.93 mmol L-1 at 20°, pH 4.90) and was highly kinetically stable. By crystallization from 1-butanol, a new compound was synthesized, which was identified as [[4-[(3-methylphenyl)amino]-3-pyridinyl]sulfonyl]carbamic acid Bu ester (TOBC). The most important properties of the TOBC are given. The present results give a thorough physicochem. characterization of the crystal forms of torasemide. They clearly indicate a mistaken identity of mod. II with crystal form A in formerly published articles.
IT 56211-40-6, Torasemide
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crystal forms of torasemide)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:114984 CAPLUS Full-text
DN 134:168369
TI Torsemide polymorphs for edema treatment
IN Aronhime, Judith; Leonov, David; Kordova, Marko; Schwartz, Anchel; Dolitzky, Ben-Zion
PA Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
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	EP 1207880	A1	20020529	EP 2000-957398	20000811	<--
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	US 6465496	B1	20021015	US 2000-638106	20000811	
	HU 2002004318	A2	20030528	HU 2002-4318	20000811	
	HU 2002004318	A3	20050329			
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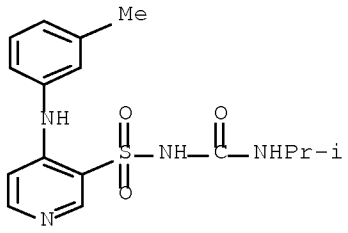
	IN 2006DN00045	A	20070824	IN 2006-DN45	20060102	
PRAI	US 1999-148305P	P	19990811			
	US 2000-183127P	P	20000217			
	US 2000-215273P	P	20000630			

WO 2000-US22081 W 20000811
IN 2002-DN153 A3 20020205

AB The present invention is directed to the novel forms of torsemide, designated Form V, amorphous torsemide, Dupont Form 2 solvent adduct, Dupont Form 2 ethanol adduct and Dupont Form 2 isopropanol adduct. Methods for their preparation are also disclosed. The present invention also relates to processes for making torsemide modification (I). Pharmaceutical compns. containing the new forms of torsemide and methods of using them are also disclosed. To a suspension of torsemide in H2O, 2N NaOH was added until reaching pH 10 and the solution was filtered. Iso-Pr alc. was added while stirring and the solution was then acidified to pH 6 with acetic acid. The white solid was filtered, washed with water and dried under high vacuum to yield torsemide Dupont Form 2 isopropanol adduct.

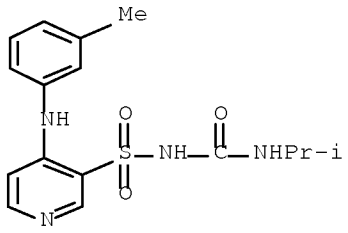
IT 56211-40-6, Torsemide
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(preparation of modified forms of torsemide including solvent adducts and amorphous forms for edema treatment)

RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



IT 56211-40-6DP, Torsemide, derivs.
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of modified forms of torsemide including solvent adducts and amorphous forms for edema treatment)

RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



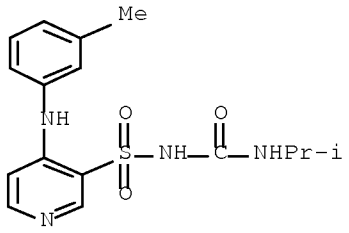
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:909216 CAPLUS Full-text

DN 134:56579
TI Preparation of the diuretic torasemide in crystal modification III which offers increased stability and more rapid onset of activity
IN Dreckmann-Behrendt, Bruno; Burger, Artur; Rollinger, Judith M.
PA Roche Diagnostics G.m.b.H., Germany
SO U.S., 6 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6166045	A	20001226	US 1998-89066	19980602 <--
PRAI US 1998-89066		19980602		

AB The diuretic torasemide, in crystal modification III, which offers increased stability and more rapid onset of activity by achieving higher levels in serum more quickly after oral administration, is prepared by: dissolving torasemide of crystal modification II and/or modification I in an alkaline aqueous solution to produce a clear solution of torasemide having a pH of 9-13; then acidifying the solution to a pH ≤8.5 at 3-60° to crystallize torasemide of crystal modification III from the acidified solution; and recovering pure crystals of torasemide of modification III. A tablet formulation of torasemide, in crystal modification III, is presented along with crystal data.
IT 56211-40-6, Torasemide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of the diuretic torasemide in crystal modification III which offers increased stability and more rapid onset of activity)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:241192 CAPLUS Full-text
DN 132:270046
TI New crystal modification III of torasemide
IN Filic, Darko; Dumic, Miljenko; Danilovski, Aleksandar; Klepic, Bozena; Fistric, Ines; Oresic, Marina; Horvat, Mikulcic Jasna
PA Pliva, Farmaceutska Industrija, Dionicko Drustvo, Croatia
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent

LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000020395	A1	20000413	WO 1999-HR23	19991001 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	HR 980532	A1	20001231	HR 1998-532	19981002 <--
	HR 980532	B1	20050630		
	CA 2345789	A1	20000413	CA 1999-2345789	19991001 <--
	AU 9962240	A	20000426	AU 1999-62240	19991001 <--
	AU 759291	B2	20030410		
	TR 200100909	T2	20010723	TR 2001-909	19991001 <--
	EP 1117643	A1	20010725	EP 1999-949272	19991001 <--
	EP 1117643	B1	20041229		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9915018	A	20010814	BR 1999-15018	19991001 <--
	ZA 200102451	A	20010928	ZA 2001-2451	19991001 <--
	HU 2001004009	A2	20020228	HU 2001-4009	19991001 <--
	HU 2001004009	A3	20020429		
	EE 200100194	A	20020617	EE 2001-194	19991001 <--
	EE 4341	B1	20040816		
	JP 2002526532	T	20020820	JP 2000-574512	19991001
	NZ 510898	A	20021025	NZ 1999-510898	19991001
	RU 2210569	C2	20030820	RU 2001-111831	19991001
	CN 1125049	C	20031022	CN 1999-811710	19991001
	AT 286024	T	20050115	AT 1999-949272	19991001
	PT 1117643	T	20050531	PT 1999-949272	19991001
	ES 2237158	T3	20050716	ES 1999-949272	19991001
	DE 29924789	U1	20050929	DE 1999-29924789	19991001
	DE 69922977	C5	20081224	DE 1999-69922977	19991001
	US 6399637	B1	20020604	US 1999-434439	19991105 <--
	NO 2001001633	A	20010330	NO 2001-1633	20010330 <--
	NO 317107	B1	20040809		
	IN 2001CN00583	A	20050304	IN 2001-CN583	20010426
	BG 105485	A	20020131	BG 2001-105485	20010502 <--
	US 20020147346	A1	20021010	US 2002-96277	20020313
	US 6833379	B2	20041221		
	HK 1040250	A1	20040305	HK 2002-102011	20020315
	US 20040229919	A1	20041118	US 2004-871667	20040621
	US 20060205951	A1	20060914	US 2006-357109	20060221
	US 20070276015	A1	20071129	US 2007-822274	20070703
PRAI	HR 1998-532	A	19981002		
	US 1998-187046	B1	19981106		
	WO 1999-HR23	W	19991001		
	US 1999-434439	A1	19991105		
	US 2002-96277	A1	20020313		
	US 2004-871667	A1	20040621		
	US 2006-357109	A1	20060221		

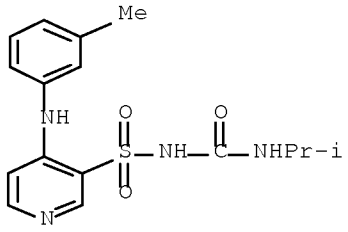
AB The present invention relates to the characterization of a new crystal modification III of torasemide, to a process for the preparation thereof by the use of controlled acidifying alkaline solns. of torasemide with inorg. or organic acids with or without addition of a crystal seed, to its use as a raw

material for the preparation of the crystal modification I of torasemide and of pharmaceutically acceptable salts of torasemide as well as to pharmaceutical forms containing this new crystal modification III of torasemide. An alkaline extract of reaction mixts. for torasemide synthesis, was acidified with 10 % aqueous acetic acid solution under the addition of 1.4 g of crystal modification III of torasemide. The suspension was stirred at room temperature and the crystals were sucked off, washed with water, and dried. The obtained crystal modification III was formulated to tablets.

IT 56211-40-6P, Torasemide
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymorph III; new crystal modification III of torasemide by controlled acidifying alkaline solns.)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:393987 CAPLUS Full-text
DN 131:35889
TI Polymorphism and control of the serum solubility of orally administered torasemide
IN Dreckmann-Behrendt, Bruno
PA Boehringer Mannheim G.m.b.H., Germany
SO U.S., 11 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5914336	A	19990622	US 1998-89067	19980602 <--
PRAI US 1998-89067		19980602		

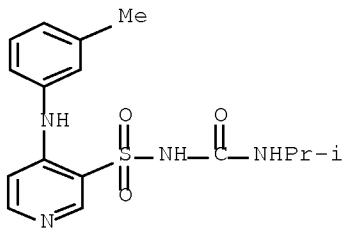
AB A method of controlling the serum solubility of orally administered torasemide comprises a blend of torasemide of known crystal form (modification I) with a new crystal form (modification III) which has significantly higher rates of solubility than the known crystal form to produce a preselected level of torasemide in serum at a given time following administration. E.g., a blend of torasemide containing 60% of modification III and 40% of modification I was prepared and tableted. The tablets were administered to the patients and after 20 min the concentration of torasemide in the serum was between that of pure modification III and that of pure modification I.

IT 56211-40-6, Torasemide
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)
(blends of torasemide crystal forms for controlling drug serum solubility after oral administration)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1997:399310 CAPLUS Full-text

DN 127:75754

OREF 127:14297a,14300a

TI Torasemide versus furosemide in patients with congestive heart failure: a double-masked, randomized study

AU Ferrara, Nicola; Leosco, Dario; Del Prete, Mario; Lombardi, Luigi; Landino, Pietro; Abete, Pasquale; Longobardi, Giancarlo; Rengo, Franco

CS Institute of Internal Medicine, Cardiology, and Cardiovascular Surgery School of Medicine, "Federico II" University, Naples, 5-80131, Italy

SO Current Therapeutic Research (1997), 58(5), 291-299
CODEN: CTCEA9; ISSN: 0011-393X

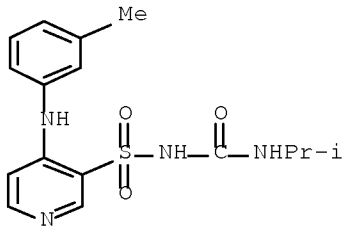
PB Excerpta Medica

DT Journal

LA English

AB A new loop diuretic torasemide has recently been introduced into international pharmacopoeia. Its chemical structure, 1-isopropyl-3-[4-(3-methyl-phenylamino)pyridine]-sulfonyl urea (pyridinyl-sulfonyl-urea), is not related to other loop diuretics, such as furosemide. It has been considered suitable for a broad spectrum of clin. settings, including heart failure, hepatic cirrhosis, hypertension, and chronic renal failure. In this study, we compared the efficacy and tolerability of torasemide and furosemide in patients with congestive heart failure (New York Heart Association) classes II and III. We observed that torasemide induced an intense diuresis (a statistically significant increase of 38% from day 3 and 75% on day 28 with respect to baseline) and increased excretion of urinary sodium and potassium, although no significant modification in plasma sodium and potassium levels was observed during the treatment period. Furosemide induced a comparable statistically significant increase of diuresis (24% on day 3 and 65% on day 28) and urinary potassium excretion associated with a significant decrease in serum potassium levels at the end of the treatment period. Two patients in group A and one patient in group B were withdrawn from treatment because of adverse reactions (muscular cramps). It can be concluded that torasemide, as well as furosemide, appear to be potent diuretic compds. The administration of torasemide produces an acceptable incidence of clin. side effects and can be indicated for use in chronic clin. conditions requiring an efficacious diuretic.

IT 56211-40-6, Torasemide
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(torasemide vs. furosemide in patients with congestive heart failure)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1987:138266 CAPLUS Full-text
DN 106:138266
OREF 106:22557a,22560a
TI Preparation of a stable crystalline modification of torasemide, useful as a diuretic
IN Topfmeier, Fritz; Lettenbauer, Gustav
PA Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.
SO Ger. Offen., 3 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3529529	A1	19870219	DE 1985-3529529	19850817 <--
	DE 3529529	C2	19870527		
	IL 79672	A	19900118	IL 1986-79672	19860810 <--
	AU 8661055	A	19870219	AU 1986-61055	19860811 <--
	AU 573454	B2	19880609		
	US 4743693	A	19880510	US 1986-895355	19860811 <--
	CS 259891	B2	19881115	CS 1986-5945	19860811 <--
	CA 1307277	C	19920908	CA 1986-515676	19860811 <--
	EP 212537	A1	19870304	EP 1986-111118	19860812 <--
	EP 212537	B1	19900103		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 49196	T	19900115	AT 1986-111118	19860812 <--
	DK 8603855	A	19870218	DK 1986-3855	19860813 <--
	DK 162518	B	19911111		
	DK 162518	C	19920330		
	ES 2001522	A6	19880601	ES 1986-1131	19860814 <--
	DD 259858	A5	19880907	DD 1986-293655	19860814 <--
	FI 8603305	A	19870218	FI 1986-3305	19860815 <--
	FI 82189	B	19901031		
	FI 82189	C	19910211		
	NO 8603305	A	19870218	NO 1986-3305	19860815 <--

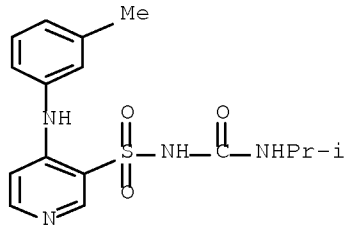
	NO 170079	B	19920601		
	NO 170079	C	19920909		
	ZA 8606151	A	19870429	ZA 1986-6151	19860815 <--
	HU 42069	A2	19870629	HU 1986-3598	19860815 <--
	HU 195778	B	19880728		
	PL 146086	B1	19881231	PL 1986-261052	19860815 <--
	SU 1480766	A3	19890515	SU 1986-4027953	19860815 <--
	JP 62045576	A	19870227	JP 1986-191789	19860818 <--
	JP 04015205	B	19920317		
	US 4822807	A	19890418	US 1987-111439	19871020 <--
	JP 02191255	A	19900727	JP 1989-278800	19891027 <--
	JP 06043400	B	19940608		
	US 34580	E	19940405	US 1992-985053	19921203 <--
	US 34672	E	19940726	US 1993-43631	19930408 <--
	LT 3596	B	19951227	LT 1993-898	19930827 <--
PRAI	DE 1985-3529529	A	19850817		
	US 1986-895355	A3	19860811		
	EP 1986-111118	A	19860812		
	US 1987-111439	A5	19871020		
	US 1991-691340	B1	19910418		

AB Crystalline torasemide (P2/c) (I) is obtained from torasemide (P2/n) (II) by stirring a suspension of II in H2O with addition of catalytic amts. of I until the rearrangement is finished. Torasemide is a diuretic (no data). Torasemide II (900 g) suspended in 10 L H2O was stirred with 10 g torasemide I 8 days at room temperature to give 875 g torasemide I. No rearrangement to I occurred without seeding.

IT 56211-40-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(rearrangement of crystal forms of)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



=> DIS L10 1-5 BIB ABS FHITSTR

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2007:446545 CAPLUS Full-text

DN 146:428101

TI Classification of torasemide based on the Biopharmaceutics Classification System and evaluation of the FDA biowaiver provision for generic products of Class I drugs

AU Khan, M. Zahirul I.; Rausl, Dragica; Radosevic, Senka; Filic, Darko; Danilovski, Aleksandar; Dumic, Miljenko; Knezevic, Zdravka

CS PLIVA Research and Development Ltd, Zagreb, 10 000, Croatia

SO Journal of Pharmacy and Pharmacology (2006), 58(11), 1475-1482
CODEN: JPPMAB; ISSN: 0022-3573

PB Pharmaceutical Press

DT Journal

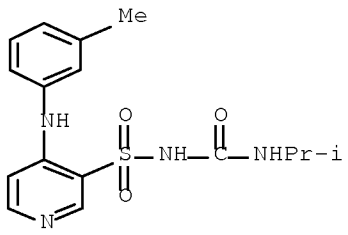
LA English

AB The biopharmaceutical properties of an inhouse developed new crystal modification of torasemide (Torasemide N) were investigated in comparison with the most well known crystal modification form of torasemide (Torasemide I) in order to classify the drug according to the Biopharmaceutics Classification System (BCS), and to evaluate the data in line with current US Food and Drug Administration (FDA) guidance (with biowaiver provision for Class I drugs) to determine if the biowaiver provision could be improved. The solubility profiles of Torasemide I and Torasemide N were determined, and tablets prepared from both forms of the drug were studied for in-vitro release characteristics in media recommended by the current FDA guidance for biowaiver of generic products, and in other media considered more appropriate for the purpose than the ones recommended by the FDA. Two sep. bioequivalence studies in healthy humans (following oral administration) were performed with two test products (both prepared from Torasemide I) against a single reference product (prepared from Torasemide N). The absorption profiles of the drug from the tablets were determined by deconvolution for comparison with the in-vitro release profiles to determine the appropriateness of some dissoln. media for predicting in-vivo performance and to determine the comparative rate and extent of absorption. The drug was absorbed from the tested products quickly and almost completely (about 95% within 3.5 h of administration). However, one test product failed to meet the bioequivalence criteria and had a significant initial lower absorption rate profile compared with the reference product ($P \leq 0.05$), whereas the other product was bioequivalent and had a similar absorption profile to the reference product. A dissoln. medium at pH 5.0, in which torasemide has min. solubility, was found to be more discriminatory than the media recommended by the FDA. Torasemide has been classified as a Class I drug according to the BCS up to a maximum dose of 40 mg and the data suggest that the current FDA guidance could be improved by giving more emphasis to selection of appropriate dissoln. media than is given in its current form for approving biowaiver to generic products of Class I drugs.

IT 56211-40-6, Torasemide
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(Torasemide I; torasemide classification based on Biopharmaceutics Classification System and evaluation of FDA biowaiver provision for generic products of Class I drugs)

RN 56211-40-6 CAPLUS

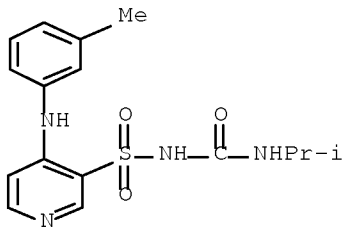
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:658942 CAPLUS Full-text
DN 146:20157
TI Difference in risks of allergic reaction to sulfonamide drugs based on chemical structure
AU Verdel, B. Marianne; Souverein, Patrick C.; Egberts, Antoine C. G.; Leufkens, Hubert G. M.
CS Division of Pharmacoepidemiology and Pharmacotherapy, Utrecht Institute for Pharmaceutica Sciences (UIPS), Faculty of Science, Utrecht University, Utrecht, Neth.
SO Annals of Pharmacotherapy (2006), 40(6), 1040-1046
CODEN: APHRER; ISSN: 1060-0280
PB Harvey Whitney Books Co.
DT Journal
LA English
AB Background: The chemical structure of sulfonamide antibiotics and sulfonamide nonantibiotics can affect the potential for adverse reactions. Objective: To assess whether differences in chemical structure of the various sulfonamide drugs influence the risk of allergic events. Methods: A case-control study was conducted among patients with diabetes mellitus (DM) using data from the General Practice Research Database. Cases were defined as patients with a diagnosis of hypersensitivity or allergic reaction. The date of the last event was the index date. Controls were matched on practice, type of DM, and index date. Current use of sulfonamides was defined as use in a 14 day time window before the index date. Sulfonamides were classified according to the presence/absence of an N1 substituent (N1+/-) and/or an arylamine (N4+/-). Conditional logistic regression was used to estimate strength of association and expressed as odds ratios and 95% confidence intervals. Results: Overall, current use of N1+ N4+ sulfonamide drugs was associated with the outcome (adjusted OR 3.71; 95% CI 1.40 to 9.81). Current use of N1+ N4- and N1- N4- sulfonamide drugs was also associated with the occurrence of allergic reactions, although not as strongly: adjusted OR 2.48 (95% CI 2.12 to 2.89) and 2.07 (95% CI 1.74 to 2.46), resp. Sex and age seemed to be effect modifiers. There was no clear evidence for effect modification by immune disease state. Conclusions: Although we did not identify major differences between the groups, we believe that this approach is an innovative manner to examine adverse drug reactions by using chemical structure instead of therapeutic drug classes to classify exposure.
IT 56211-40-6, Torasemide
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfonamide drug with or without N1 substituent showed no difference in risks of allergic reaction based on chemical structure in diabetes mellitus patient)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

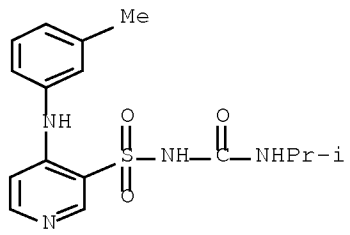
L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:878376 CAPLUS Full-text
DN 141:370519
TI Preparation of stable polymorphic form of torasemide
IN Yeh, Wen-Lung; Khumtaveeporn, Kanjai; McKenzie, David John
PA Torcan Chemical Ltd., Can.
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004089904	A2	20041021	WO 2004-CA366	20040312
	WO 2004089904	A3	20041223		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2424644	A1	20041007	CA 2003-2424644	20030407
PRAI	CA 2003-2424644	A	20030407		

AB The stable polymorphic form of torasemide, modification I, is prepared from other, less stable torasemide forms, by forming a solution of the starting polymorphic form of torasemide in water and methanol, stirring for at least 20 h and then phase separating the solid torasemide modification I from the liquid medium. Torasemide modification I was prepared according to above method (yield =100%).

IT 56211-40-6P, Torasemide
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of stable polymorphic form of torasemide)

RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)

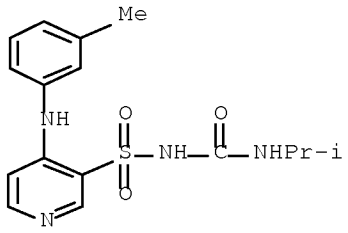


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:80656 CAPLUS Full-text
DN 140:146008
TI Process for preparation of N-[(1-methylethyl)aminocarbonyl]-4-[(3-methylphenyl)amino]-3-pyridinesulfonamide
IN Filic, Darko; Dumic, Miljenko; Danilovski, Aleksandar; Klepic, Bozena; Fistric, Ines; Marinkovic, Marina; Horvat-Mikulcic, Jasna
PA Pliva D.D., Croatia
SO PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004009554	A1	20040129	WO 2003-HR36	20030707
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	HR 2002000603	B1	20081130	HR 2002-603	20020719
	AU 2003255850	A1	20040209	AU 2003-255850	20030707
	EP 1532112	A1	20050525	EP 2003-765215	20030707
	EP 1532112	B1	20071226		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1668596	A	20050914	CN 2003-817298	20030707
	JP 2005537273	T	20051208	JP 2004-522376	20030707
	AT 382037	T	20080115	AT 2003-765215	20030707
	IN 2004CN03178	A	20060303	IN 2004-CN3178	20041213
	US 20060100439	A1	20060511	US 2005-521609	20050930
PRAI	HR 2002-603	A	20020719		
	WO 2003-HR36	W	20030707		

AB The invention relates to a new process for the preparation of modification I, N-[(1-methylethyl)aminocarbonyl]-4-[(3- methylphenyl)amino]-3-pyridinesulfonamide, of torasemide by precipitation with acids from an alkaline extract of the original reaction mixture of the last phase in the synthesis of torasemide. This provides a method suitable for large scale with easy separation of modification I and II to their macroscopic crystal form.
IT 56211-40-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of pyridinesulfonamide derivs.)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)

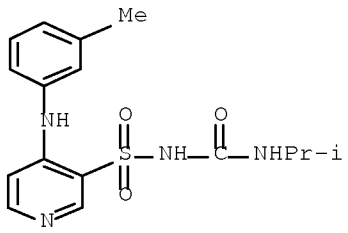


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:333042 CAPLUS Full-text
DN 138:326605
TI Preparation of tablets containing the crystal modification II of torsemide
IN Maegerlein, Markus; Hantke, Thomas; Breitenbach, Joerg; Rosenberg, Joerg
PA Abbott G.m.b.H. & Co. K.-G., Germany
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10249029	A1	20030430	DE 2002-10249029	20021021
	US 20030119882	A1	20030626	US 2002-271976	20021017
PRAI	DE 2001-10151973	A1	20011022		

AB The invention concerns solid drug delivery systems, especially tablets that contain torsemide in the crystal modification II or its solvate. Further ingredients include sugars, sugar alcs., calcium hydrogen phosphate, cellulose and its derivs., polyvinylpyrrolidone. Thus a formulation contained (weight/weight%): torsemide 3.0; Lactose H2O 84.5; Methocel K4M 5.0; AcDiSol 6.0; Mg-stearate 0.5; Aerosil 200 1.0.
IT 56211-40-6, Torsemide
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of tablets containing the crystal modification II of torsemide)
RN 56211-40-6 CAPLUS
CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



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=> DIS L6 1-2 BIB ABS HITSTR

L6   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2004:80656  CAPLUS  Full-text
DN   140:146008
TI   Process for preparation of
     N-[(1-methylethyl)aminocarbonyl]-4-[(3-methylphenyl)amino]-3-
     pyridinesulfonamide
IN   Filic, Darko; Dumic, Miljenko; Danilovski, Aleksandar; Klepic, Bozena;
     Fistric, Ines; Marinkovic, Marina; Horvat-Mikulcic, Jasna
PA   Pliva D.D., Croatia
SO   PCT Int. Appl., 14 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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PI   WO 2004009554        A1     20040129    WO 2003-HR36            20030707
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     HR 2002000603         B1     20081130    HR 2002-603             20020719
     AU 2003255850         A1     20040209    AU 2003-255850          20030707
     EP 1532112            A1     20050525    EP 2003-765215          20030707
     EP 1532112            B1     20071226
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     CN 1668596            A      20050914    CN 2003-817298          20030707
     JP 2005537273         T      20051208    JP 2004-522376          20030707
     AT 382037             T      20080115    AT 2003-765215          20030707
     IN 2004CN03178        A      20060303    IN 2004-CN3178          20041213
     US 20060100439        A1     20060511    US 2005-521609          20050930
PRAI HR 2002-603           A      20020719
     WO 2003-HR36          W      20030707
AB   The invention relates to a new process for the preparation of modification I,
     N-[(1-methylethyl)aminocarbonyl]-4-[(3- methylphenyl)amino]-3-
     pyridinesulfonamide, of torasemide by precipitation with acids from an
     alkaline extract of the original reaction mixture of the last phase in the
     synthesis of torasemide.  This provides a method suitable for large scale with
     easy separation of modification I and II to their macroscopic crystal form.
IT   56211-40-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of pyridinesulfonamide derivs.)
RN   56211-40-6  CAPLUS
CN   3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-
     methylphenyl)amino]-  (CA INDEX NAME)
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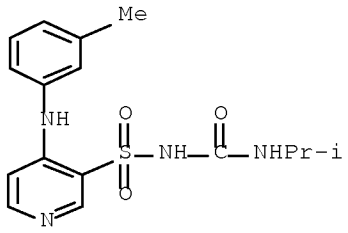


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:241192 CAPLUS Full-text
DN 132:270046
TI New crystal modification III of torasemide
IN Filic, Darko; Dumic, Miljenko; Danilovski, Aleksandar; Klepic, Bozena; Fistric, Ines; Oresic, Marina; Horvat, Mikulcic Jasna
PA Pliva, Farmaceutska Industrija, Dionicko Drustvo, Croatia
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000020395	A1	20000413	WO 1999-HR23	19991001
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	HR 980532	A1	20001231	HR 1998-532	19981002
	HR 980532	B1	20050630		
	CA 2345789	A1	20000413	CA 1999-2345789	19991001
	AU 9962240	A	20000426	AU 1999-62240	19991001
	AU 759291	B2	20030410		
	TR 200100909	T2	20010723	TR 2001-909	19991001
	EP 1117643	A1	20010725	EP 1999-949272	19991001
	EP 1117643	B1	20041229		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9915018	A	20010814	BR 1999-15018	19991001
	ZA 200102451	A	20010928	ZA 2001-2451	19991001
	HU 2001004009	A2	20020228	HU 2001-4009	19991001
	HU 2001004009	A3	20020429		
	EE 200100194	A	20020617	EE 2001-194	19991001
	EE 4341	B1	20040816		
	JP 2002526532	T	20020820	JP 2000-574512	19991001
	NZ 510898	A	20021025	NZ 1999-510898	19991001
	RU 2210569	C2	20030820	RU 2001-111831	19991001
	CN 1125049	C	20031022	CN 1999-811710	19991001
	AT 286024	T	20050115	AT 1999-949272	19991001
	PT 1117643	T	20050531	PT 1999-949272	19991001

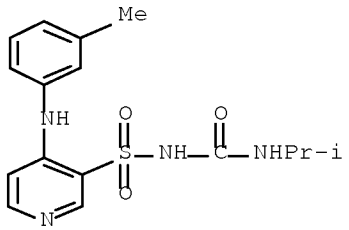
	ES 2237158	T3	20050716	ES 1999-949272	19991001
	DE 29924789	U1	20050929	DE 1999-29924789	19991001
	DE 69922977	C5	20081224	DE 1999-69922977	19991001
	US 6399637	B1	20020604	US 1999-434439	19991105
	NO 2001001633	A	20010330	NO 2001-1633	20010330
	NO 317107	B1	20040809		
	IN 2001CN00583	A	20050304	IN 2001-CN583	20010426
	BG 105485	A	20020131	BG 2001-105485	20010502
	US 20020147346	A1	20021010	US 2002-96277	20020313
	US 6833379	B2	20041221		
	HK 1040250	A1	20040305	HK 2002-102011	20020315
	US 20040229919	A1	20041118	US 2004-871667	20040621
	US 20060205951	A1	20060914	US 2006-357109	20060221
	US 20070276015	A1	20071129	US 2007-822274	20070703
PRAI	HR 1998-532	A	19981002		
	US 1998-187046	B1	19981106		
	WO 1999-HR23	W	19991001		
	US 1999-434439	A1	19991105		
	US 2002-96277	A1	20020313		
	US 2004-871667	A1	20040621		
	US 2006-357109	A1	20060221		

AB The present invention relates to the characterization of a new crystal modification III of torasemide, to a process for the preparation thereof by the use of controlled acidifying alkaline solns. of torasemide with inorg. or organic acids with or without addition of a crystal seed, to its use as a raw material for the preparation of the crystal modification I of torasemide and of pharmaceutically acceptable salts of torasemide as well as to pharmaceutical forms containing this new crystal modification III of torasemide. An alkaline extract of reaction mixts. for torasemide synthesis, was acidified with 10 % aqueous acetic acid solution under the addition of 1.4 g of crystal modification III of torasemide. The suspension was stirred at room temperature and the crystals were sucked off, washed with water, and dried. The obtained crystal modification III was formulated to tablets.

IT 56211-40-6P, Torasemide
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymorph III; new crystal modification III of torasemide by controlled acidifying alkaline solns.)

RN 56211-40-6 CAPLUS

CN 3-Pyridinesulfonamide, N-[[(1-methylethyl)amino]carbonyl]-4-[(3-methylphenyl)amino]- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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